

WHAT IS CLAIMED IS:

1. An optical mechanism for increasing the optical path, installed in an office machine, comprising a machine base defining an internal space,
5 and a paper-feeding mechanism arranged on said machine base, said paper-feeding mechanism having a receiving space on the inside and an incident zone on a bottom side thereof for passing of light, the optical mechanism comprising:

an optical-path device mounted in the internal space inside said
10 machine base, said optical-path device comprising an image sensor and an optical module; and

a light-focusing structure mounted in the receiving space inside said paper-feeding mechanism and set above said incident zone.

2. The optical mechanism as claimed in claim 1, wherein said
15 machine base comprises a document carrier glass disposed on a top side thereof, in which said optical module provides a scan light focused onto a front focus on a top surface of said document carrier glass, and said light-focusing structure is disposed above said front focus and adapted to focus a dispersed light, which passes through said front focus, onto a rear
20 focus, through which the document to be scanned passes.

3. The optical mechanism as claimed in claim 1, wherein said incident zone is formed of a transparent material, and said light-focusing structure is a convex lens formed integral with and upwardly extended from said incident light.

4. The optical mechanism as claimed in claim 1, wherein said incident zone is an opening, said light-focusing structure comprises a hollow locating device disposed on two sides of said incident zone and upwardly extended from a bottom panel of said paper-feeding mechanism, and a
5 focusing lens set is mounted in said hollow locating device.

5. An optical mechanism for increasing the optical path, mounted on the top side of the machine base of an office machine, said machine base comprising a document carrier glass disposed at a top side and an optical-path device disposed on an inside thereof, said optical-path device forming a front
10 focus on a top surface of said document carrier glass, said paper-feeding mechanism comprising:

a receiving space and a sheet-transferring mechanism mounted on the inside; and

a light-focusing structure mounted in said receiving space and set
15 above said front focus of said optical-path device, said light-focusing structure forming a rear focus, and said sheet-transferring mechanism being adapted to transfer the document to be scanned, through said rear focus.

6. The optical mechanism as claimed in claim 5, wherein said paper-feeding mechanism has an incident zone disposed on a bottom side
20 thereof in proximity to and below said front focus.

7. The optical mechanism as claimed in claim 6, wherein said incident zone is formed of a transparent material, and said light-focusing structure comprises a convex lens formed integral with and upwardly extended from said incident zone of said paper-feeding mechanism.

8. The optical mechanism as claimed in claim 6, wherein said incident zone is an opening, and said light-focusing structure comprises a hollow locating device upwardly extended from a bottom panel of said paper-feeding mechanism and a focusing lens set mounted in said hollow
5 locating device.

9. An office machine for increasing the optical path, comprising:
a machine base, said machine base comprising an optical-path device mounted on the inside thereof, said optical-path device comprising an image sensor and an optical module, said optical module providing a scan
10 light forming a front focus; and

a paper-feeding mechanism mounted on said machine base and set above said front focus, said paper-feeding mechanism comprising a receiving space and at least one light-focusing structure mounted in said receiving space.

15 10. The office machine as claimed in claim 9, wherein the office machine is a copy machine.

11. The office machine as claimed in claim 9, wherein the office machine is a scanner.

12. The office machine as claimed in claim 9, wherein said
20 paper-feeding mechanism has an incident zone disposed on a bottom side thereof in proximity to and below said front focus.

13. The optical mechanism as claimed in claim 12, wherein said incident zone is formed of a transparent material, and said light-focusing structure comprises a convex lens formed integral with and upwardly

extended from said incident zone of said paper-feeding mechanism.

14. The optical mechanism as claimed in claim 12, wherein said incident zone is an opening, and said light-focusing structure comprises a hollow locating device upwardly extended from a bottom panel of said paper-feeding mechanism and a focusing lens set mounted in said hollow locating device.

15. The optical mechanism as claimed in claim 14, wherein said focusing lens set of said light-focusing structure comprises at least one convex lens fastened to a top side of said hollow locating device.

10 16. The optical mechanism as claimed in claim 15, wherein said at least one convex lens each has a locating groove, and said hollow locating device has a flanged top engaging said locating groove of each said convex lens.

17. The optical mechanism as claimed in claim 15, wherein said at least one convex lens each has two flanges disposed on two sides and respectively positioned on the top side of said hollow locating device.